Application No.: 09/831,272 Attorney Docket No.: 4038.001
Amendment D

Response to Office Action dated 06/28/2010

## IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

- 1. (Canceled).
- 2. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both, wherein the <u>chimeric</u> promoter comprises:
  - two or more cis-acting elements sufficient to direct the pathogen-elicitorinduced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid sequence, or both, and
  - (ii) a minimal promoter,

wherein induction of said local gene expression upon the pathogen elicitor treatment and/or the pathogen infection is between 10-fold and 15-fold, the two or more eis-aeting elements comprising:

four copies of SEQ ID NO:11;

the combination of one copy of SEQ ID NO:11 followed by one copy of SEQ ID NO:3 or SEQ ID NO:4;

the combination of four copies of SEQ ID NO:11 followed by four copies of SEQ ID NO:3 or SEQ ID NO:4; or

the combination of four copies of SEQ ID NO:7 followed by four copies of SEQ ID NO:11.

3. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, pathogen infection, or both, wherein the <u>chimeric</u> promoter comprises:

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(i) two or more cis-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection induced expression of the nucleic acid sequence, or both, wherein at least one of said two or more cis-acting elements consists of the nucleotide sequence of SEQ ID NO: 117 and;

(ii) a cis-acting element having the nucleotide sequence selected from the group consisting of SEO ID NO:1 and SEO ID NO:2; and

(iii) a minimal promoter.

further comprising a cis-acting element having the nucleotide sequence-selected from the group consisting of: SEO ID NO; 1-and SEO ID NO; 2-

### 4-7. (Canceled)

- 8. (Previously presented) The chimeric promoter of claim 2, 3, 42, 43, 47, 49, 51 or 52, wherein at least two of said cis-acting elements are separated by a spacer of between about 4 to 10 base pairs.
- (Previously presented) The chimeric promoter of claim 2, 3, 42, 43, 47, 49, 51
  or 52, wherein at least two of said two or more cis-acting elements are separated by a spacer of
  between about 50 to 1000 base pairs.

## 10-21. (Canceled)

22. (Previously presented) An isolated cis-acting element sufficient to direct pathogen-elicitor-specific expression, pathogen-infection-specific expression, or both, of an operably linked nucleic acid, wherein the element consists of the nucleotide sequence of SEQ ID NO: 11.

# 23-38. (Canceled)

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39. (Currently amended) A <u>chimeric</u> promoter obtainable by a method of rendering a gene responsive to pathogens, wherein the method comprises to render a gene responsive to pathogens, obtained by a method comprising inserting at least one cis-acting element sufficient to direct pathogen-elicitor-induced expression, pathogen-infection-induced expression, or both, of an operably linked nucleic acid, into the promoter of said gene, wherein

(1) the at least one *cis*-acting element mediates induction of local gene expression in plants upon the pathogen elicitor treatment, the pathogen infection, or both, is to between 10-fold and 15-fold and wherein the at least one *cis*-acting element comprises

four copies of SEQ ID NO:11; or

the combination of one copy of SEQ ID NO:11 followed by one copy of SEQ ID NO:3 or SEO ID NO:4; or

the combination of four copies of SEQ ID NO:11 followed by four copies of SEQ ID NO:3 or SEQ ID NO:4; or

the combination of four copies of SEQ ID NO:7 followed by four copies of SEQ ID NO:11; or

(2) the at least one *cis*-acting element mediates induction of local gene expression in plants upon the pathogen elicitor treatment, the pathogen infection, or both is to between 15-fold and 81-fold and the at least one *cis*-acting element comprises

two copies of SEO ID NO: 11; or

a combination of one copy of SEQ ID NO: 11 and one copy of SEQ ID NO: 7; or the combination of four copies of SEQ ID NO:11 followed by four copies of SEQ

ID NO:7; or

the combination of two copies of SEQ ID NO:3 or SEQ ID NO:4 followed by two copies of SEQ ID NO:11; or

(3) the at least one cis-acting element comprises

at least one copy of the nucleotide sequence of SEQ ID NO: 11 and at least one copy of the nucleotide sequence of SEQ ID NO:1 or 2; or

at least one copy of the nucleotide sequence of SEQ ID NO: 11 and at least one copy of the nucleotide sequence of SEQ ID NO:7; or

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two copies of the nucleotide sequence of SEQ ID NO: 11 and two copies of the nucleotide sequence of SEQ ID NO: 7; or

at least one copy of the nucleotide sequence of SEQ ID NO: 11 and at least one copy of the nucleotide sequence of SEO ID NO:3 or 4; or

- (4) the at least one cis-acting element comprises:
- (i) two or more cis-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein at least one of the two or more cis-acting elements consists of the nucleotide sequence of SEQ ID NO:11, and
  - (ii) a cis-acting element having the nucleotide sequence selected from the group consisting of SEQ ID NO:5, 6, 8, 9, 10, 12 and 13; or
- (5) the at least one cis-acting element consists of

two cis-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein one of the two cis-acting elements consists of the nucleotide sequence of SEQ ID NO:11.

## 40-41. (Canceled)

- 42. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both, wherein the <u>chimeric</u> promoter comprises:
  - (i) two or more cis-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid sequence, or both, wherein at-least-one of said the two or more cis-acting elements comprise at least one copy of the nucleotide sequence of SEQ ID NO: 11, and at least one copy of the nucleotide sequence of SEQ ID NO: 7, and
  - (ii) a minimal promoter.

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43. (Previously Presented) The chimeric promoter according to claim 42, wherein the two or more cis-acting elements comprise two copies of the nucleotide sequence of SEQ ID NO: 11 and two copies of the nucleotide sequence of SEO ID NO: 7.

- 44. (Previously presented) A recombinant gene comprising the chimeric promoter of claim 2, 3, 39, 42, 43, 47, 49, 50, 51, or 52.
- 45. (Previously presented) A vector comprising the chimeric promoter of claim 2, 3, 39, 42, 43, 47, 49, 50, 51, or 52.
- 46. (Currently amended) A method for the production of transgenic plants, transgenic plant cells or transgenic plant tissues, wherein the method comprises introducing [[a]] the chimeric promoter according to claim 2, 3, 39, 42, 43, 47, 49, 50, 51, or 52, into the genome of plants, plant cells or plant tissues to produce the transgenic plants, the transgenic plant cells and/or or the transgenic plant tissue.
- 47. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by elicitor treatment, pathogen infection, or both, wherein the <u>chimeric</u> promoter comprises:
- (i) two or more cis-acting elements sufficient to direct the pathogen-elicitorinduced expression of the nucleic acid sequence, the pathogen-infection induced expression of the nucleic acid sequence, or both, and
  - (ii) a minimal promoter,

wherein induction of said local gene expression upon the pathogen elicitor treatment and/or pathogen infection is between 15-fold and 81-fold, the two or more *cis*-acting elements comprising:

two copies of SEQ ID NO: 11; the combination of one copy of SEQ ID NO: 11 followed by one copy of SEQ ID

NO: 7:

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the combination of four copies of SEQ ID NO: 11 followed by four copies of SEQ ID NO: 7; or

the combination of two copies of SEQ ID NO:3 or SEQ ID NO:4 followed by two copies of SEQ ID NO:11.

### 48. (Canceled)

- 49. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both, wherein the <u>chimeric</u> promoter comprises:
  - (i) two or more cis-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection- induced expression of the nucleic acid sequence, or both, wherein at least one of the two or more cis-acting elements consists of the nucleotide sequence of SEQ ID NO: 11<sub>5</sub> and;
- (ii) a cis-acting element having the nucleotide sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:4; and
  - (iii) a minimal promoter. -

further comprising a cis-acting element having the nucleotide sequence selected from the group consisting of: SEO ID NO: 3 and SEO ID NO: 4.

- 50. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both, wherein the <u>chimeric</u> promoter consists of:
- a cis-acting element sufficient to direct the pathogen-elicitor-induced expression
  of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or
  both, wherein the cis-acting element consists of the nucleotide sequence of SEQ ID NO: 11, and
  - (ii) a minimal promoter,

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wherein induction of said local gene expression upon the pathogen elicitor treatment and/or the pathogen infection is between 10-fold and 15-fold.

- 51. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both, wherein the <u>chimeric</u> promoter comprises:
- two or more cis-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein at least one of the two or more cis-acting elements consists of the nucleotide sequence of SEQ ID NO:11-and;
  - a cis-acting element having the nucleotide sequence selected from the group consisting of SEQ ID NO:5, 6, 8, 9, 10, 12, and 13; and
  - (iii) a minimal promoter. ;

further comprising a cis-acting element having the nucleotide sequence selected from the group consisting of SEO ID NO:5, 6, 8, 9, 10, 12 and 13.

- 52. (Currently amended) A chimeric promoter capable of local gene expression in plants of an operably linked nucleic acid sequence, wherein the expression is induced by a pathogen elicitor treatment, a pathogen infection, or both wherein[[,]] the <u>chimeric promoter consists</u> of:
- (i) two cis-acting elements sufficient to direct the pathogen-elicitor-induced expression of the nucleic acid sequence, the pathogen-infection-induced expression of the nucleic acid, or both, wherein one of the two cis-acting elements consists of the nucleotide sequence of SEQ ID NO:11, and wherein the second cis-acting element is a cis-acting element different from a CAAT element; and
  - (ii) a minimal promoter.
  - 53. (Previously presented) A recombinant gene comprising the chimeric promoter of claim 8.

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54. (Previously presented) A vector comprising the chimeric promoter of claim 8.

55. (Currently amended) A method for the production of transgenic plants, transgenic plant cells or transgenic plant tissues, wherein the method comprises introducing [[a]] the chimeric promoter according to claim 8 into the genome of plants, plant cells or plant tissues to produce the transgenic plants, the transgenic plant cells and/or or the transgenic plant tissue.

- (Previously presented) A recombinant gene comprising the chimeric promoter of claim 9.
- 57. (Previously presented) A vector comprising the chimeric promoter of claim 9.
- 58. (Currently amended) A method for the production of transgenic plants, transgenic plant cells or transgenic plant tissues, wherein the method comprises introducing [[a]] the chimeric promoter according to claim 9 into the genome of plants, plant cells or plant tissues to produce the transgenic plants, the transgenic plant cells and/or or the transgenic plant tissue.